THE TAR HEEL WASH OFF

NOVEMBER, 1936

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DEEP RIVER AREA

HIGH POINT, NORTH CAROLINA.

STATE COORDINATOR'S MESSAGE

It is gratifying to note the improvement in the general farming practices which have been adopted by the farmers of the Deep River area, as evidenced on every hand, by the definite arresting of erosion and increased crop yields. Old farming practices are giving way to new and scientific methods which have been the means of conserving much valuable topsoil, and reclaiming many badly eroded acres.

In reviewing briefly the work of the past three years, to include September, 1936, we find that 1,152 farmers in the Deep River area have signed cooperative farm agreements with the Soil Conservation Service, embracing 88,244 acres. Strip-cropping, within the area is being practiced on 3,632 acres; crop rotation on 16,869 acres, and contour furrowing on 58 acres. 2,482 acres of cultivated land have been retired to hay and pasture and 1,297 acres, including gullies, have been planted to woodland.

A total of 26,869 acres are being protected by cover crops; 963 miles of terraces have been built, with 4,419 permanent and 9,066 temporary terrace outlet structures completed.

For the purpose of gully control, 2,963 temporary dams have been built, 125,309 square yards of banks have been sloped and about the same number square yards seeded.

There are 144 wild life cooperators, embracing an area of 13,356 acres, on which shelterbelts and windbreaks have been established; 451,310 woody shrubs have been planted, and 582 plots totaling 141 acres have been seeded to supply bird food.

This is an indication of the strong tendency, on the part of the farmers, toward better farm management. It is of vast importance that this good work be maintained and extended as rapidly as possible.

In the future, the Soil Conservation men will be unable to call as often as they have in the past, and all cooperating farmers are urged either to write, or come in to the High Point offices, when difficulties arise with which they need assistance.

The farm agreement explains the matter of crop rotations and by consulting this, the farmer should have little difficulty in working out his proper cropping plans from year to year.

However, the Service is ready at all times to render the farmer every possible aid, and welcomes the opportunity of assisting him in the improvement of his Soil Conservation practices.

J. H. Stallings
State Coordinator

AN ENTHUSIASTIC COOPERATOR

One of the most enthusiastic cooperators with the Soil Conservation Service in the Deep River area, is E. M. Wagner, of Greensboro, Route 3, who gives the Service all the credit for the improved conditions on his farm, since he became a cooperator in January, 1935.

Mr. Wagner is carrying out the program in the broader sense. By this is meant the reduction of erosion and soil loss to a minimum, by the employment of proper land uses, with the result that his income has very materially increased and the farmstead greatly improved.

In working out his soil conservation program, Mr. Wagner has not applied any one articular plan of erosion control, but has embraced in his farming practices the combined major methods now being demonstrated by the Service in this area.

When Mr. Wagner became a cooperator, his land was largely used for truck and row crops, which are very conducive to erosion, especially on sandy, sloping land. Mr. Wagner's greatest ambition from a farming standpoint was the establishment of hay and pasture.

Two years ago, he had two head of cattle. Today he has nine head and is selling milk from four cows, and has just completed an addition to his barn. He plans to build up his herd to 25 head. The increase will be made gradually as his farm is improved to a point where sufficient feed can be produced for this size herd. He has three brood sows that produce pigs for market and pork for family use. In addition to these two money crops,

he is also raising 4½ acres of tobacco this year.

Before the cooperative agreement was worked out on Mr. Wagner's farm, there were no terraces. Since that time 18½ acres have been terraced, the Soil Conservation Service doing a part of the work, and Mr. Wagner, using his own team, built the remainder. In spite of a 3½ inch rainfall in 12 hours, these terraces are in excellent condition.

Definite rotations have been worked out for the entire farm, and as much of the corn crops as possible are grown on bottom land. Where corn is cultivated on the upland, it is grown in three year rotations. Barley is sown as a grain crop, substituting for corn.

At the suggestion of the Soil Conservation Service, Mr. Wagner has added lespedeza to his farm crops, and this year 17½ acres were grown. A part of the land has been strip cropped, which fits well into his farm program. Winter cover crops, consisting of Austrian winter peas, vetch, crimson clover and rye, also occupy an important place in his farming practices.

Mr. Wagner's farming practices are but one of the many demonstrations to be found among the Deep River cooperators, that prove conclusively that a properly managed and well balanced farming program will yield gratifying and profitable returns.

SAVE LESPEDEZA SEED

November is the month in which to save lespedeza seed. The Kobe, Common and Tennessee #76 should be harvested by the use of a pan attachment on the mower, and should be done before the plants become so dry and brittle that seed is lost from wind and rain. However, harvesting should not be done in the early morning or at any time when the plants are wet with dew or other moisture.

Observations have shown that lespedeza is a profitable farm crop, not only from the standpoint of hay production, and soil conservation, but also from the production of seed for market. Some farmers realize as much or more cash from a crop of lespedeza seed taken after wheat, than from the wheat itself.

Last year, one soil conservation cooperator in the Deep River area obtained a yield of 20 bushels of wheat per acre, which represented a cash yield of $20. to $25. per acre. Later, he harvested 14 bushels of lespedeza seed from this same field, which amounted to approximately 600 pounds per acre. This meant a cash return from the lespedeza of $30. to $35. per acre.

The growing of lespedeza is spreading northward and has been grown as far north as Canada. In the northern sections of the country, however, the seasons are so short that the seed does not have time to mature and ripen, and therefore, the northern grower must depend upon the southern producer for his seed each year. This should be an encouragement to North Carolina farmers to produce more lespedeza seed for the market.

Lespedeza has become one of the most popular soil improving and erosion control legumes in North Carolina. When harvested by the use of the pan attachment, practically all of the plant is left on the ground. This supplis much needed organic matter, materially improves the fertility of the soil and reduces soil loss.

MUST CONTROL EROSION

"To correct the false philosophy of land use which has developed out of former conditions in this new America, it is necessary first to drive home the fact that erosion can be controlled; and then the fact that it must be controlled. Of the 1906 million acres of the United States, some 555 million acres is crop and pasture land, good, bad and indifferent. After only two centuries of whit occupation, fifty million acres of this land has been essentially ruined by accelerated erosion for farming purposes. Another fifty million acres are in almost as bad shape. In all, that means enough land gone or nearly gone, to provide homes for a million and a quarter families."

H.H. Bennett, Chief
Soil Conservation Servic

PROPER CARE OF FOREST LANDS

Woodlands in the Deep River area are typical of what is found throughout the Piedmont region, and practically every farm in the Piedmont has from one to twenty acres of land which for the past ten years have been abandoned as of no further use.

These fields, once very fertile and productive have been worn out by unscientific farming practices of other years. Once tossed into the discard, erosion is aggrevated on abandoned fields, which become scarred with gullies that widen and deepen with each successive rain. The treatment of these abandoned fields with protective measures against further erosion and to aid in the development of young forest stands is, therefore, an imperative necessity.

When fields through excessive cropping or grazing have become exhausted, it has been the practice in the Piedmont to allow them to grow up to a more or less scattered growth of timber through the process of natural seeding. In rare instances, as in the loblolly pine region, fair stands of timber result from this practice. In the main, however, such stands are of little value, due to the fact that the undesirable species, such as scrub pine, scrub oak, sassafras, persimmon, etc., are the first to appear and these crowd out the more desirable seedling species.

In the past, the best trees have usually been cut for marketing purposes, until there is nothing left but forest weeds and culls. Seeding and planting, then must be resorted too in order to change the character of the stand or to fill the blanks

left by natural seeding. After the trees get started and a good litter is established on the ground, nature will do the rest toward a profitable growth of timber. The ground cover will prevent erosion and absorb moisture, otherwise lost, to foster the growth of small forest stands, which promise to return some of the lost values of the barren and abandoned land.

Then by strict attention to the cutting of trees, and the use of judicious thinning practices, they can often be kept at their maximum production without the necessity of further seeding or planting. A properly managed woodland is a valuable farm asset.

SAVE THE SOIL AND YOU SAVE CIVILIZATION

"Where the soil is entirely swept away, man is swept away too, and all living things perish. Where the soil is lost down to the subsoil, as it has been in many parts of the Piedmont, the natural vegetation changes. Farming becomes more difficult and less profitable. Living standards are lowered, not only for farmers, but for all who deal with farmers, whether face to face, or at a distance. When this happens, it calls for concerted national programs of soil defense and restoration. If accelerated erosion is allowed to go on removing topsoil thousands of times faster than Nature can restore it, our civilization must certainly decline."

H. H. Bennett, Chief
Soil Conservation Service

EDITORIALS

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NORTH CAROLINA AREA

FEDERAL BUILDING - High Point, N. C.
STATE COORDINATOR - Dr. J. H. Stallings

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SAVE THE SOIL

With the establishment of the Soil Conservation Service, a new era dawned for farmers of the Deep River area, and rapid strides have been made in the matter of improved farming methods which are paying the farmers handsome dividends, not only in immediate cash returns, but in the more important matter of the conservation of soil and water. This condition prevails not only in the Deep River watershed, but throughout the entire country as well.

Uncle Sam's rich topsoil is his most valuable natural resource. With it, America has become the richest nation on earth. Without it, we would have been no better off than the Chinese or the African Bushmen.

The Nation's rise to power and wealth upon the proceeds of its rich soils presents a beautiful picture of achievement. The ability of the land to

produce plentifully, and in variety, has made America great; it must be sustained if America stays great. It can be sustained only if the fountain of production -- the soil -- is safeguarded and preserved. The good soil must be kept good and the badly eroded areas reclaimed in so far as possible, if this country would eventually escape the fate that has overtaken the Yellow River region of China.

There is yet much to be done, but the work is on the upgrade. New and better farming plans are rapidly replacing former land-use practices, as the farmers throughout the country turn to crop rotation, contour tillage, terracing, strip-cropping, land retirement and other proper farming plans, all of which are soil conserving methods, and must be maintained if American farms are to be saved from destruction, and American civilization is to continue its forward march.

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$400,000,000 LOST ANNUALLY

Erosion is primarily a land problem, and its cost must be measured largely in terms of damage to the land. Exact statistics are not available, but a conservative estimate places at something like $400,000,000 the productive land values washed and blown from our fields each year by the process of wind and water erosion.

H. H. Bennett, Chief
Soil Conservation Service

CROP ROTATION

Close growing crops, as lespedeza, the clovers, and perennial grasses not only enable the land to absorb more water and retain the soil while these crops are growing on the field, but when they are turned into the soil as vegetable matter, more water is absorbed and more soil retained on the hillsides.

Thick growing crops can be most effective in conserving soil when used in the most advantageous places and arranged in a good cropping program. The first requirement of such a program is a good crop rotation system. These rotations should be planned so that the erosion-resisting, soil-improving crops will occupy the land as great a percentage of the time as the available acreage of the farm will permit.

If a farmer had sixty acres of land and it was necessary for him to grow twenty acres of cotton and corn each year, then forty acres should be kept in soil conserving crops. Where the cultivated acreage of the farm will not permit the practice of a long time rotation for the whole farm, the longer rotation should be planned for the steeper slopes remaining in cultivation, and the shorter rotation for the more level land. As a rule, tobacco should be grown in a separate rotation from that of the other row crops. Legumes immediately preceeding tobacco on a field will cause a poor quality of tobacco to be produced.

Wherever practical, the crops should be rotated in broad strips crosswise the slope on rolling land. This plan is more effective in conserving soil on such land than when rotated by fields.

In planning a long time soil conservation program, the farmer should work toward a reduction of his row crop acreage within a few years without reducing his total production or income. This can be done by substituting barley and oats for corn, and by using soil building crops in the rotation which would result in increased yields of such crops as cotton and corn.

Much time and thought should be given to planning and starting these rotations. If an accurate map is not available, a simple sketch of the farm should be made showing fields, pastures, roads, woods, and buildings. Each of the fields should be given a number and the crop schedule listed for each field. The cropping schedule for the whole farm should be balanced and definite. Some of the crops ordinarily included in a rotation may be planted in the fall. Tobacco rotation may be started in the fall by seeding red top grass with small grain. Rye should be sown as a winter cover crop on all fields not having other cover crops on them. Winter cover crops will prevent much soil erosion and leaching of plant food as well as a means of supplying vegetable matter to the soil in the spring.

IMPORTANCE OF WINTER LEGUMES

Science tells us that it required from 400 to probably 1000 years for Nature to build one inch of Piedmont topsoil, yet it requires only 4 years for uncontrolled erosion to remove an inch of this soil when spaded 8 inches deep in the Spring and left fallow.

As Nature produces our soils, she also preserves them for our use by means of vegetation. Therefore, vegetation is our best method of controlling erosion. This method cannot be used on cultivated fields where row crops are growing during the summer season, but it can be used on them in winter as a cover crop.

Because there are 25 times as much available plant food lost through erosion and leaching annually, as there is consumed by a crop, it is important that some method of retarding this loss be taken. A winter cover crop will use this plant food as it becomes available instead of allowing it and the soil to be washed away, and when turned under, adds organic matter to the soil.

Soils that are deficient in organic matter, will lose tons of soil per acre, per year, while soils that are kept intact with organic matter applied, will absorb most of the water that falls on them.

Organic matter is added to the soil by crop rotations, and by plowing under cover crops. Winter cover crops increase the fertility of the soil, make good cheap winter pasture and furnish a protective cover for the soil. An average

crop of vetch turned under green, for instance, will supply the soil with 20 pounds of badly needed nitrogen per acre. This nitrogen, which would cost the farmer about $10.00 per acre in the form of commercial fertilizer, will be effective on the crops which follow for more than two years. The organic residue will be effective for many years.

Winter pasture is of much importance to farmers. During this season, native grasses are dormant. Feeding milk cows, therefore, becomes an expensive practice. Winter cover crops furnish excellent pasture for live stock during the most of the winter.

EROSION CONTROL PROTECTS MUNICIPAL RESERVOIR

It seems that considerably less silt is reaching the High Point Municipal Reservoir, located near Jamestown, than it had previously received, due to the protection of the land draining into the lake. This protection was afforded by the seeding of lespedeza and gully mixture, and the planting of trees on the steep slopes surrounding the reservoir. In addition to this, the shorelineswere planted to trees and shrubs.

WATER CONSERVATION AND MEADOW STRIPS

Water control and conservation is the most important factor in the control of erosion. When rain water is allowed to flow, unretarded, over unprotected, cultivated fields, as much as 10 to 60 tons of the richest top soil is washed from each acre, each year, into the stream channels, resulting in the eventual abandonment of the land.

One of the major problems of terracing to conserve water is the handling of the water after it has reached the end of the terrace, and unless there is some form of adequate outlet, gullying will result.

Although there is no one best type of terrace outlet channel, the meadow strip type is receiving favorable approval by both soil conservationists and farmers in the Deep River area. If properly constructed and prepared before seeding, and a good sod is formed before turning the water into the meadow strip, this type will prove very satisfactory.

The meadow strip, however, cannot be used successfully on all terraced fields. The slope must be considered, as too steep land is not suited to this type of outlet. The soil must be rich enough to produce and maintain a good strong sod of grasses and legumes that will withstand the velocity of the water turned into it.

The meadow strip should be placed in a natural depression of the field, or on the edge of the field to which the water would naturally drain.

The width of the strip will vary from 30 to 80 feet, or more, depending upon the area drained and the extent of the field the farmer desires to seed. The strip should be as flat as possible, and not trough-like, so that the water may spread over the width of the strip and not concentrate.

The meadow strip outlet should be built and a good vegetative cover established before the field is terraced. Where this is not possible, a diversion ditch may be used along the edge of the strip until the sod is established. This, however, is not the ideal method, as such ditches tends to wash deeper.

PROPER FARMING MEANS PROSPERITY

Where proper farming practices and good soils are found, prosperous and contented farmers are there also. This prosperity reaches into the urban centers, and bankers, merchants, and all manner of business will share the prosperity enjoyed by their progressive rural neighbors.

WILDLIFE

The time has arrived when the farmer should begin to give some thought to the desirable wildlife about him. A maxium of protection from predatory enemies and sufficient food and cover for the winter months should be provided.

Much bird-life loss occurs when they are compelled to travel a long distance from shelter to food. If the food is scarce and the weather severe, the birds will becoms weak, and will fall an easy prey both to disease and their animal enemies.

A good method of furnishing a continuous supply of feed to practically all of the resident birds and squirrels frequenting brush and timber localities is to use ordinary wooden boxes attached to trees. These boxes should be low enough for convenient replenishment, and high enough to be beyond the reach of livestock.

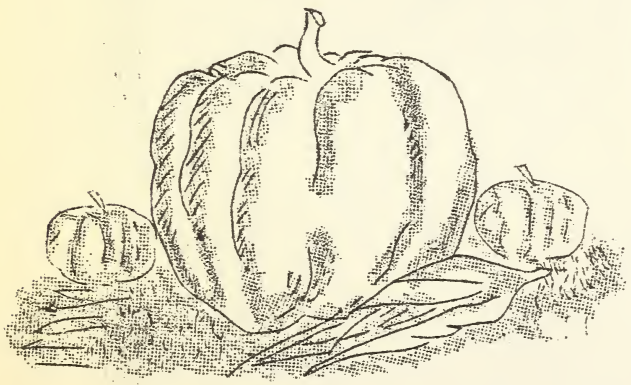
Poultry feed is especially good for practically all species of winter birds, although grain of any kind is very desirable. Cracked corn makes a good feed for most all birds, as it is heat producing and, therefore, suitable for winter use.

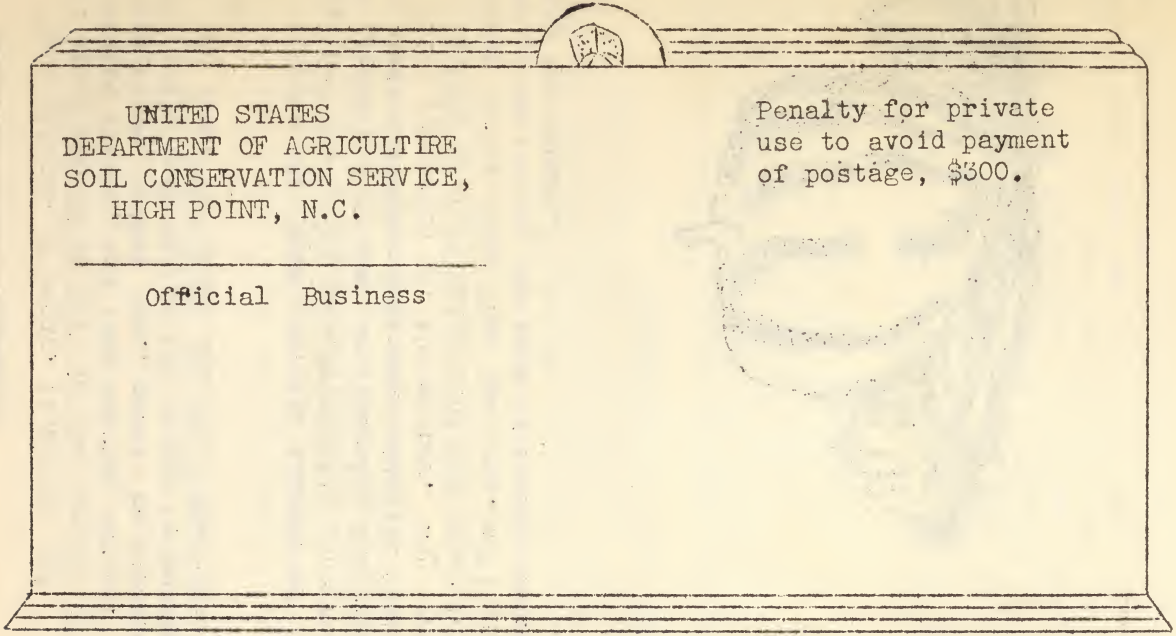
Only a small amount of feed is required, the cost of which is negligible when compared with the number of injurious insects destroyed by the birds during the summer months. There is little to be gained by attempting to attract birds unless such outstanding enemies as stray house cats are done away with. In reality, our wild birds could get along with much less cover and seek food to better advantage if not interfered with by prowling cats.

GRAIN PATCHES HELP QUAIL

Food patches of weeds, lespedeza and small grain should be left in old corners of cultivated fields, and food bearing shrubs, as coralberry, privet etc., should be planted in the gully beds and on the slopes to provide food and cover for quail and other desirable birds.

It is to be hoped that all classes of people are now becoming sufficiently conservation minded not to hunt or otherwise interfere with birds and other desirable wildlife that are being protected for the winter. Any ordinary methods of furnishing food and cover for resident birds, other than the crow, will yield ample profits along the line of insect control during the future.





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